

Detroit  
Edison

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December 27, 1994  
NRC-94-0090

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

References: 1) Fermi 2  
NRC Docket No. 50-341  
NRC License No. NPF-43  
  
2) NRC Inspection Report No. 50-341/94009,  
dated August 12, 1994

Subject: Relief Request for Inservice Testing Program for Pumps  
and Valves

Detroit Edison is submitting Relief Request VR-59 in accordance with  
10CFR50.55a(g)(5)(iii).

While closing violation 50-341/89024-01J concerning full stroke  
testing of two testable check valves (E1100F050A and B, residual heat  
removal system inboard isolation testable check valves), the NRC  
identified an inspector follow-up item 50-341/94009-01 (Reference 2).  
Detroit Edison is submitting this relief request to resolve this item.

Relief Request VR-59 involves the substitution of calculations for the  
measurement of actual **observed** force in meeting the alternate testing  
requirements in ASME Section XI per IWV-3522 for stroke testing of  
check valves E1100F050A and B. At the time the actuators were  
installed, the actual torque to perform the exercise was not observed.

Detroit Edison requests approval of this relief request because  
removal of the actuator and measurement of the actual torque required  
to lift the disc would result in an unnecessary excessive radiation  
exposure. The actuator is of the rack and pinion type and would  
require a significant amount of time to remove and then to reinstall  
and align, only to affirm the validity of the calculations. The full  
stroke actuators are installed on E1100F050A and B, and alternate  
testing previously described in Relief Request VR-8 is being used.  
Approval of Relief Request VR-59 will allow Detroit Edison to use  
calculated torque in lieu of the actual **observed** force. Fermi is  
currently utilizing the proposed relief requested in VR-59. The ISI  
program has been revised to include the relief request.

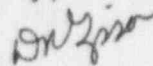
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If you have any questions on this matter, please contact Mr. Hari O.  
Arora at (313) 586-4213.

Sincerely,



Enclosure

cc: T. G. Colburn  
J. B. Martin  
M. P. Phillips  
A. Vogel

RELIEF REQUEST NO. VR-59

SYSTEM: Residual Heat Removal  
COMPONENT: E1100F050A E1100F050B  
CATEGORY: A/C

FUNCTION: These valves are designed as pressure isolation valves (PIVs). Pressure isolation valves are defined as valves which isolate the portions of a system designed for low pressure service from the portions of a system connected to the Reactor Coolant Pressure Boundary (RCPB) which are designed for high pressure service.

TEST REQUIREMENTS: As stated in Relief Request VR-8, valves E1100F050A and E1100F050B will be full stroke tested in the open direction using a mechanical full stroke actuator during refueling outages. This test must meet the requirements of paragraph IWV-3522(b).

BASIS FOR RELIEF: Paragraph IWV-3522(b) states that "... The force or torque delivered to the disk by the exerciser must be limited to less than 10% of the equivalent force or torque represented by the minimum emergency condition pressure differential acting on the disk, or to 200% of the actual observed force or torque required to perform the exercise on the valve when the valve is new and in good operating condition, whichever is less ...". At the time the actuators were installed, the actual torque to perform the exercise was not observed. The valves were, however, exercised numerous times while new and in good operating condition. Subsequently, it was determined by calculation that the latter force is the lessor of the two and that this torque should have been observed. This calculation also demonstrated that the actuator provides 172.86% of the force that would have been observed to exercise the valve when it was new. Thus, the actuator meets the intent of the code in that the valve will not be over stressed, and it does provide the margin to monitor for degradation. To remove the actuator and measure the actual torque to lift the disc would pose an undue hardship on Fermi. Excessive radiation exposure would result because the actuator is of the rack and pinion type and would require much time to remove and then reinstall and align, only to affirm the validity of the calculations.

ALTERNATE TESTING: The calculated torque to lift the disc will be used as the test basis in lieu of the actual observed force.